

CLAIMS:

What is claimed is:

1. A method in a logical partitioned data processing system for halting input/output error propagation in the logical partitioned data processing system, the method comprising:
 - responsive to detecting an error state in a bridge from a plurality of bridges in the logical partitioned data processing system, identifying all components associated with the bridge to form a set of failed components; and
 - storing an identification of the failed components, wherein the identification is used by each partition during a boot process.
- 15 2. The method of claim 1, wherein the identifying step comprises:
 - identifying slots associated with the bridge to form identified slots; and
 - identifying components associated with the identified slots to form the set of identified components.
- 20 3. The method of claim 1, wherein the identifying step and the storing step are performed by a machine check interrupt handler.
- 25 4. The method of claim 1, wherein the set of components is a set of input/output devices.

5. The method of claim 1, wherein the set of components includes at least one of a random access memory, a hard disk drive, a tape drive, and a read only random access memory.

5 6. The method of claim 1, wherein the identification prevents any partition sharing the bridge from starting.

7. A method in a logical partitioned data processing system for halting input/output error propagation in the data processing system, the method comprising:

10 identifying components associated with a partition within the logical partitioned data processing system during booting of the partition to form a set of partition components;

15 searching a memory to determine whether a component within the set of partition components is identified within the memory; and

failing the booting of the partition in response to the component being identified within the memory.

8. The method of claim 7 further comprising:

20 generating an error indication in response to the component being identified within the memory.

9. A data processing system for halting input/output error propagation in the logical partitioned data processing system, the data processing system comprising:

25 a bus system;

a communications unit connected to the bus system;

a memory connected to the bus system, wherein the memory includes a set of instructions; and

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a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to identify all components associated with the bridge to form a set of failed components in response 5 to detecting an error state in a bridge from a plurality of bridges in the logical partitioned data processing system; and store an identification of the failed components in which the identification is used by each partition during a boot process.

10 10. A data processing system for halting input/output error propagation in the data processing system, the data processing system comprising:

a bus system;

a communications unit connected to the bus system;

15 a memory connected to the bus system, wherein the memory includes a set of instructions; and

a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to identify components associated with a

20 partition within the logical partitioned data processing system during booting of the partition to form a set of partition components; search a memory to determine whether a component within the set of partition components is identified within the memory; and fail the 25 booting of the partition in response to the component being identified within the memory.

11. A logical partitioned data processing system for halting input/output error propagation in the logical partitioned data processing system, the data processing

30 system comprising:

identifying means, responsive to detecting an error state in a bridge from a plurality of bridges in the logical partitioned data processing system, for identifying all components associated with the bridge to form a set of failed components; and

storing means for storing an identification of the failed components, wherein the identification is used by each partition during a boot process.

12. The data processing system of claim 11, wherein the identifying means comprises:

first identifying means for identifying slots associated with the bridge to form identified slots; and

second identifying means for identifying components associated with the identified slots to form the set of identified components.

13. The data processing system of claim 11, wherein the identifying means and the storing means are performed by a machine check interrupt handler.

14. The data processing system of claim 11, wherein the set of components is a set of input/output devices.

15. The data processing system of claim 11, wherein the set of components includes at least one of a random access memory, a hard disk drive, a tape drive, and a read only random access memory.

25 16. The data processing system of claim 11, wherein the identification prevents any partition sharing the bridge from starting.

17. A logical partitioned data processing system for halting input/output error propagation in the data processing system, the data processing system comprising:

- identifying means for identifying components
5 associated with a partition within the logical partitioned data processing system during booting of the partition to form a set of partition components;
- searching means for searching a memory to determine whether a component within the set of partition
10 components is identified within the memory; and
- failing means for failing the booting of the partition in response to the component being identified within the memory.

18. The data processing system of claim 17 further
15 comprising:

- generating means for generating an error indication in response to the component being identified within the memory.

19. A computer program product in a computer readable
20 medium for halting input/output error propagation in the logical partitioned data processing system, the computer program product comprising:

- first instructions, responsive to detecting an error state in a bridge from a plurality of bridges in the
25 logical partitioned data processing system, for identifying all components associated with the bridge to form a set of failed components; and
- second instructions for storing an identification of the failed components, wherein the identification is used
30 by each partition during a boot process.

20. A computer program product in a computer readable medium for halting input/output error propagation in the data processing system, the computer program product comprising:

- 5 first instructions for identifying components associated with a partition within the logical partitioned data processing system during booting of the partition to form a set of partition components;
- 10 second instructions for searching a memory to determine whether a component within the set of partition components is identified within the memory; and
- third instructions for failing the booting of the partition in response to the component being identified within the memory.